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### **Revision 1**

# Worker Safety and Health Program Description

Cognizant Section:	Safety Programs	
Approved by:	Bertha Cassingham	



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### 1.0 INTRODUCTION

In December 2002, Congress directed the U.S. Department of Energy (DOE) to promulgate regulations on worker safety and health requirements to cover contractors with Price-Anderson indemnification agreements in their contracts. The result of that directive is Title 10, *Energy. Code of Federal Regulations* (CFR), Part 851, "Worker Safety and Health Program" (the 851 Rule) published on February 9, 2006, as effective February 9, 2007. The final rule was built on existing contract practices and processes to achieve safe and healthful workplaces. The rule was intended to be complimentary to Integrated Safety Management (ISM). As such, it was expected that contractors not establish redundant worker protection programs to comply with the rule, but that the final rule established an effective worker safety and health program that will reduce or prevent injuries, illnesses, and accidental losses by providing DOE contractors and their workers with a safe and healthful workplace integrating the current safety and health programs and processes in a workplace where hazards are abated, controlled, or otherwise mitigated in a manner that provides reasonable assurance that workers are adequately protected from identified hazards.

Washington TRU Solutions LLC (WTS) is under contract with DOE Carlsbad Field Office (CBFO) for the management and operation of the Waste Isolation Pilot Plant (WIPP). WTS systematically integrates safety and environmental stewardship into management and work practices to accomplish the WIPP mission of disposing of transuranic (TRU) and TRU mixed waste while protecting the worker, the public, and the environment. The scope includes characterization activities at several generator sites to ensure consistent delivery of waste for disposal to meet the nation's cleanup goals. The scopes for the generator site characterization activities are defined in the primary CBFO Contract DE-AC29-01AL66444, in generator site memorandums of understanding (MOUs) and interface agreements, and occasionally in subcontracts, depending on the site.

#### 2.0 PURPOSE

This document, the WTS Worker Safety & Health Program Description (WTS WSHPD), identifies the elements, methods, and processes by which WTS meets the requirements in the 851 Rule while integrating with the Integrated Safety Management System (ISMS) Description, and the WTS Voluntary Protection Program (VPP), thus serving as the overall foundational base program description for worker safety and health. Therefore, this document provides no new safety or health requirements. Instead, it serves as a program description of the WTS overall safety program and associated policies, requirements, processes, methods and procedures, providing compliance with the requirements of 10 CFR Part 851. The previously approved ISMS Description is the means by which worker safety and health requirements described by this WTS WSHPD are integrated into mission work activities performed by WTS. The purpose of the WTS Safety Program overall is to establish safety and health requirements that provide workers with a safe and healthful workplace in which hazards are abated, controlled, or

otherwise mitigated in a manner that provides reasonable assurance that workers are adequately protected from identified hazards.

#### 3.0 WASTE ISOLATION PILOT PLANT DESCRIPTION

WIPP is located in southeastern New Mexico in Eddy County approximately 26 miles east of Carlsbad. The WIPP site is designed to permanently dispose of TRU waste from United States nuclear weapons research and production programs. The WIPP is a mined repository located 2,150 feet underground in a stable ancient salt formation. Site facilities include structures, buildings, and underground excavations.

Under contract, WTS has accepted responsibility for the management and operation of WIPP, including the requirement to provide a safe and healthful workplace that protects the worker, environment, and the public.

Contact-handled (CH)-TRU waste disposal operations began March 26, 1999, after the successful demonstration of compliance with applicable state and federal laws and applicable regulations, and completion of the WIPP CH-TRU operational readiness review (ORR). The ORR verified that the facility was operationally ready and that CH waste disposal operations would be conducted safely at WIPP. Since that time, over 6,000 shipments of CH-TRU waste have been received and are being stored in the WIPP underground. Remote-handled (RH) waste operations began in 2007 with the first shipment safely stored in the repository on January 29, 2007.

### 4.0 COORDINATION WITH OTHER SITE CONTRACTORS

Title 10 CFR §851.11 states that contractors are to coordinate with the other contractors responsible for work at the covered workplaces to ensure that there are clear roles, responsibilities and procedures to ensure the safety and health of workers at multi-contractor workplaces. Therefore, the WTS WSHPD is not only applicable to WTS activities, but includes the roles and responsibilities of host sites referencing the host site 851 Plans to serve as a roadmap for the specific host site procedures that apply to WTS activities.

### 4.1 Central Characterization Project

Under the auspices of the Retrieval, Characterization Transportation organization (RCT), WTS also manages and operates the Central Characterization Project (CCP), which provides a standardized characterization and certification capability to certify TRU waste for disposal at the WIPP. CCP was established to provide cost effective TRU waste characterization, confirmation, and certification, including generation-level and project-level data validation and verification in accordance with programmatic compliance documents. The CCP is structured to use mobile/modular units deployed to waste generator sites. The National TRU Program uses CCP to assist small quantity sites that have limited or no TRU waste characterization and certification capability, and

to supplement the capability of the large quantity sites. CCP utilizes WTS and subcontractor personnel to accomplish these objectives.

WTS addresses safety and health considerations for host site operations through an interface agreement between each host facility and WTS. The interface agreement specifies the respective responsibilities of WTS and the host facility regarding provision of facilities, utilities, maintenance support, safety support, and environmental support, and operational responsibilities. Division of operational responsibilities between WTS and host sites are described in the interface agreement for each site. As a CBFO directed activity to the host site(s), CCP operations conducted at the host site must comply with applicable requirements with the host site and WTS. These requirements, as related to 10 CFR Part 851 implementation, are defined in interface documents, and are included in the WTS WSHPD by facility as the WTS WSHPD is applicable to WTS activities.

### 4.2 Other Companies Conducting Work at WIPP

The WTS WSHPD is applicable to WTS subcontractors providing services at any covered workplace. DOE laboratories (Los Alamos National Laboratory [LANL] and Sandia National Laboratories [SNL]), Carlsbad Field Office Technical Assistance Contractor (CTAC), and other DOE direct contracts, whether conducting research or working specific projects on the WIPP site are directly contracted to DOE and thus per the rule responsible for their own 851 Plan, are covered under their parent company 851 plan. Additional interfaces and responsibilities for DOE direct contracts as related to safety aspects at WIPP governed by WTS are defined further in WP 02-EC.12, Site Users Guide for Organizations, Personnel, or Companies that Perform Work on U.S. DOE Property or Rights of Way on or Around the Waste Isolation Pilot Plant Site.

### 5.0 SCOPE AND APPLICABILITY

Protection of the environment, the public, and the safety and health of employees is the number one priority for the conduct of operations for WTS wherever the work may be located. Title 10 CFR §851.11, states that if a contractor is responsible for more than one covered workplace at a DOE site, the contractor must establish and maintain a single worker safety and health program for the covered workplaces for which the contractor is responsible. The Rule and therefore the WTS WSHPD applies to the conduct of WTS activities at WIPP, Idaho National Laboratory (INL), Argonne National Laboratory-East (ANL-E), Savannah River Site (SRS), Oak Ridge National Laboratory (ORNL), and Los Alamos National Laboratory (LANL).

The WTS WSHPD also describes how WTS complies with the requirements set forth in Subpart C that are applicable to the covered workplace(s) with the referenced policies and procedures providing the actual methods of implementation.

#### 5.1 WIPP Site

#### 5.1.1 WTS

WTS is the managing and operating contractor for the WIPP site. The WIPP site is located in an area of low population density. There are no industrial, commercial, institutional, recreational or residential structures within the WIPP site boundary. The WIPP is designed to receive and handle 500,000 cubic feet per year (ft<sup>3</sup>/yr) (14,160) cubic meters per year [m<sup>3</sup>/yr]) CH waste and 10,000 ft<sup>3</sup>/yr (283 m<sup>3</sup>/yr) RH waste. The WIPP facility is designed to have a disposal capacity for TRU waste of 6.2 million ft<sup>3</sup> (175,600 m<sup>3</sup>), with the capacity to handle 250,000 ft<sup>3</sup> (7,080 m<sup>3</sup>) of RH waste. The WIPP surface structures accommodate the personnel, equipment, and support services required for the receipt, preparation, and transfer of waste from the surface to the underground. The surface structures are located in an area within a perimeter security fence. The primary surface operations at the WIPP are conducted in the Waste Handling Building (WHB), which is divided into the CH waste handling area, the RH waste handling area, and support areas. The CH waste handling area includes the entrance airlocks, CH bay, a shielded storage room, and CH support facilities. Vertical shafts, including the waste shaft, the salt handling shaft, the exhaust shaft, and the air intake shaft, extend from the surface to the underground horizon. The WIPP underground consists of the waste disposal area, construction area, north area, and the waste shaft station area. The waste disposal area is a 100 acre area on a horizon located 2,150 feet beneath the surface in a deep, bedded salt formation. Waste is transferred from the surface to the disposal horizon through the waste shaft using a hoist and conveyance. A typical disposal panel consists of seven disposal rooms. Each room is 33 feet wide, 13 feet high, and 300 feet long. The disposal rooms are separated by pillars of salt 100 feet wide and 300 feet long. Waste arrives to the WIPP in drum assemblies, standard waste boxes (SWBs), or ten-drum overpacks (TDOPs). The principal operations at the WIPP involve the receipt and disposal of TRU mixed waste. Hazards associated with normal WIPP operations include mining dangers. rotating machinery, high voltage, compressed gases, confined spaces, radiological and nonradiological hazardous materials, nonionizing radiation, high noise levels, mechanical and moving equipment dangers, working at heights, construction, outdoor temperature extremes, and material handling dangers. Waste handling operations at the WIPP do not involve high temperature and pressure systems, or electromagnetic fields.

#### 5.1.2 Subcontractors

WTS has implemented a process to assure that the requirements of 10 CFR Part 851 are appropriately flowed down to subcontractors performing work at WTS covered sites. The process includes specific procurement clauses for subcontractors to work under the applicable requirements of the WTS WSHPD, as well as work control requirements, safety reviews, occupational medical requirements and others to ensure effective implementation of 10 CFR Part 851. WTS is responsible for flowing down Environmental, Safety, and Health (ES&H) requirements to subcontractors at any tier to

the extent necessary to ensure compliance with these requirements. These requirements become part of the terms and conditions of agreement in each subcontract before commencing work at the WIPP or CCP sites. WTS and the subcontractors coordinate in accordance with WP 12-IS.01-6, Industrial Safety Program-Subcontractor Safety, to ensure clear roles, responsibilities and procedures to achieve an integrated approach to ensuring the safety and health of the worker consistent with 10 CFR §851.11(a)(2)(ii).

### 5.2 Generator Sites

WTS and WTS subcontractor personnel work at a number of DOE generator sites where WTS has no direct contractual authority of overall site operations. WTS has therefore negotiated interface agreements with the respective generator site's management and operating (M&O) contractor. These interface agreements define WTS and generator site responsibilities regarding safety oversight and safety support for generator site operations. WTS fully expects each generator site's M&O contractor to proactively address their safety commitments to CCP operations at those sites. WTS also understands that the safety and health of WTS personnel and WTS subcontractor personnel, remains the responsibility of WTS, regardless of location. WTS management commitment for generator site personnel is further delineated in the applicable sections of this program description.

#### 5.3 SRS

The Interfaces and Responsibilities regarding the overall scope of work conducted by WTS at SRS are defined in CCP-PO-004, CCP/SRS Interface Document. This includes the fact that the host site has primary responsibility for assuring that requirements for safety (specifically including radiological control, emergency management, industrial safety, industrial hygiene, security, safety basis, and environmental permits) are met. The scope of work conducted by WTS and its subcontractors at SRS is based on the responsibilities for the characterization of CH gravel, soil, and debris waste. Specific activities include providing nondestructive examination (NDE), nondestructive radioassay (NDA), and headspace gas sampling and analysis. However, there are components based on management commitment and the fact that WTS always retains corporate responsibility for the protection of their workers that are further delineated in the applicable sections of this program description.

#### **5.4 ORNL**

The Interfaces and Responsibilities regarding the overall scope of work conducted by WTS at the Oak Ridge Reservation TRU Waste Processing Center are defined in CCP-PO-027, CCP/ORNL Interface Document. EnergX has primary responsibility for assuring that requirements for safety (specifically including radiological control, emergency management, industrial safety, industrial hygiene, security, safety basis, and environmental permits) are met. However, there are components based on management commitment and the fact that WTS always retains corporate responsibility

for the protection of their workers that are further delineated in the applicable sections of this program description. Services provided by WTS include waste characterization and certification services including the management of contracts required to provide NDA and NDE services for characterizing low-level and transuranic waste, as well as services for headspace gas analysis in TRU waste.

### **5.5 LANL**

The Interfaces and Responsibilities regarding the overall scope of work conducted by WTS at LANL are defined in CCP-PO-012, CCP/LANL Interface Document. This includes the fact that the host site, LANL has primary responsibility for assuring that requirements for safety (specifically including radiological control, emergency management, industrial safety, industrial hygiene, security, safety basis, and environmental permits) are met. However, there are components based on management commitment and the fact that WTS always retains corporate responsibility for the protection of their workers that are further delineated in the applicable sections of this program description.

### 5.6 INL

The Interfaces and Responsibilities regarding the overall scope of work conducted by WTS at INL are defined in CCP-PO-024, CCP/INL Interface Document, and CCP-PO-501, CCP Remote Handled Transuranic Waste Authorized Methods for Payload Control (CCP RH-TRAMPAC). This includes the fact that the host sites (Advanced Mixed Waste Treatment Project (AMWTP), and CWI, LLC have primary responsibility for assuring that requirements for safety (specifically including radiological control, emergency management, industrial safety, industrial hygiene, security, safety basis, and environmental permits) are met. These same responsibilities apply to the new scope of work at INL for transportation of CH and RH TRU Waste. However, there are components based on management commitment and the fact that WTS always retains corporate responsibility for the protection of their workers that are further delineated in the applicable sections of this program description.

#### 5.7 ANL-E

The Interfaces and Responsibilities regarding the overall scope of work conducted by WTS at ANL-E are defined in CCP-PO-500, CCP/ANL RH-TRU Waste Interface Document. This includes the fact that the host site has primary responsibility for assuring that requirements for safety (specifically including radiological control, emergency management, industrial safety, industrial hygiene, security, safety basis, and environmental permits) are met. However, there are components based on management commitment and the fact that WTS always retains corporate responsibility for the protection of their workers that are further delineated in the applicable sections of this program description.

#### 6.0 COVERED WORKPLACES/ACTIVITIES

Per 10 CFR §851.3, a covered workplace is a place at a DOE site where a contractor is responsible for performing work in furtherance of a DOE mission. Therefore, the following are considered covered workplaces/activities applicable to this WTS WSHPD.

### 6.1 WIPP Site

The WIPP site includes the area within the Land Withdrawal Act defined area, surface and underground.

The overall WIPP safety program applies to everyone that enters the WIPP site as they are provided a level of protection in accordance with VPP STAR status level. Per DOE guidance on who must comply with the 851 Rule, the following companies, agencies, and groups are specifically excluded from the WTS WSHPD.

Excluded groups include the following:

- Emergency response groups such as off-site municipal fire departments, mine rescue teams from area mines,
- Various university groups, laboratories and other research entities conducting research, if the research being conducted is non-DOE-funded/scope research,
- State and municipal departments that may be maintaining highways, conducting audits, etc., and
- General public or companies passing through the Land Withdrawal area for recreational purposes or conducting work that is non-DOE-funded scope.

### 6.2 Skeen-Whitlock Building

This is a covered worksite for WTS employees and their subcontractors. The Skeen Whitlock Building is a Government Services Administration (GSA) building. GSA services provided are not covered in the WTS WSHPD.

### 6.3 INL

Characterization activities work scope conducted at the DOE INL by WTS and its subcontractors will be addressed in the specific sections below based on interface agreements, contract scopes of work, the Host Sites 851 Plans, and this WTS WSHPD. At INL there are four different work scopes described in actual statements of work to include characterization activities related to CH Waste at AMWTP, and CH and RH Waste for CWI, and transportation for INL. The characterization activities include NDA, NDE, Visual Exam (VE), headspace gas, and the transportation support activities for TRAMPAC compliance.

#### 6.4 ORNL

Characterization activities work scope conducted at the DOE Oak Ridge facility by WTS and its subcontractors will be addressed in the specific sections below based on interface agreements, contract scopes of work, the Oak Ridge EnergX 851 Plans, (hereafter referenced simply as a host plan) and this WTS WSHPD. The WTS role includes characterization activity support in the role of programmatic guidance, procedure development, and provision of NDA, NDE, and VE services for CH, and RH waste.

#### 6.5 LANL

Characterization activities work scope conducted at the DOE LANL facility by WTS and its subcontractors will be addressed in the specific sections below based on interface agreements, contract scopes of work, the LANS 851 Plan, (hereafter referenced simply as a host plan) and this WTS WSHPD.

#### 6.6 SRS

Characterization activities work scope conducted at the DOE SRS by WTS and its subcontractors will be addressed in the specific sections below based on interface agreements, contract scopes of work, the SRS 851 Plan (hereafter referenced simply as a host plan), and this WTS WSHPD.

### 6.7 ANL-E

Characterization activities work scope conducted at the DOE INL by WTS and its subcontractors will be addressed in the specific sections below based on interface agreements, contract scopes of work, the U of C, LLC 851 Plan (hereafter referenced simply as a host plan), and this WTS WSHPD. The CH characterization activities at ANL-E have been completed, and RH characterization activities are in progress.

### 7.0 EXCLUSIONS

### 7.1 Scopes Not Covered

In accordance with 10 CFR §851.2(c), the WTS WSHPD does not apply to transportation to or from a DOE site. Therefore, the WTS WSHPD is not applicable to transportation subcontracts, such as the WIPP bus subcontract, nor are incidents/accidents off the DOE sites involving employees, Government Services Administration vehicles, etc. Though such incidents will be investigated and Occurrence Reporting requirements will be met, they will not be considered 851 Rule applicable.

Also in accordance with 10 CFR §851.2 (b), the WTS WSHPD does not apply to radiological hazards or nuclear explosives operations to the extent regulated by

10 CFR Parts 20, 820, 830, or 835. Though related components may be referenced due to inclusion in overall ISMS or VPP, they are not applicable to 10 CFR Part 851.

Specific related areas excluded based on the fact that the scope of work, though located on the WIPP site, is not DOE-funded includes research by various university groups, laboratories and other research entities conducting research in the underground research/experimental area of the WIPP. This exclusion also includes any public use of land withdrawal act area based on the fact that it is not DOE-funded work.

Additionally, DOE Guidance and language in the rule states that merely providing supplies does not fall within the scope of Part 851. Also, such services will not be tracked for OSHA reporting. Thus, this program plan does not apply to companies and agencies providing services to WIPP that are supply-focused, such as the following:

- Vending machine suppliers, copy machine maintenance
- Delivery personnel such as UPS or office supplies delivery
- Utilities personnel serving areas such as power and communication lines

The occupational medicine portion of this WTS WSHPD does not apply to subcontractors that work at one of the covered workplaces/activities for less than 30 days in a 12-month period and are not required to be enrolled in a medical or exposure monitoring program, due to lack of potential for exposure.

#### 7.2 Carlsbad Areas Not Covered

- Laboratory work conducted by WTS employees at Carlsbad Environmental Monitoring and Research Center (CEMRC) is not covered, since CEMRC is not a DOE site.
- The WTS WSHPD does not apply to the WIPP Records Archive, nor the CBFO Records Holding Facility since they are not located at a DOE site.

#### 7.3 Other Locations Not Covered

Since 10 CFR Part 851 is applicable only to DOE sites, though our worker protection program is applicable to WTS employees and its subcontractors, the specifics in the WTS WSHPD implementing the Rule are not applicable to the following:

 Office workers that are not located at DOE sites. Though conducting DOE work, office personnel at Albuquerque, New Mexico; Denver, Colorado; and Tacoma, Washington, for example are not working at a DOE site, and thus do not fall under the auspices of the WTS WSHPD.

Work conducted in the field that is not on a DOE Site, such as training
presented to emergency responders on shipping routes, emergency response
at a non-DOE site (such as mine rescue), and competitions and conferences
held off-site.

### 8.0 GENERAL REQUIREMENTS (SUBPART B - PROGRAM REQUIREMENTS, §851.10, GENERAL REQUIREMENTS)

The WTS overall safety program is based primarily on integrating safety into operations, and a focus on continuous improvement that results in a proactive safety culture where:

- (1) Safety is a clear priority in activities,
- (2) Everyone understands their safety responsibilities and considers safety not only a personal obligation to themselves, but an obligation to watch for the safety of others,
- (3) Organization systems and processes provide added assurance that hazards are controlled and human errors are minimized and mitigated, and
- (4) Continuous learning and improvement is expected and consistently achieved.

This program has successfully provided the foundation for promoting safe behavior and has created a world class safety culture for over a decade. This foundation meets the requirements of §851.10 (a) and (b) providing a place of employment that is free from recognized hazards that are causing or have the potential to cause death or serious physical harm to workers; and ensures that work is performed in accordance with applicable requirements of Part 851, and with the worker safety and health program for WTS covered workplaces. The written worker safety and health program consists of the WTS WSHPD and the referenced programs, policies, and procedures. The WTS WSHPD describes how WTS complies with the requirements set forth in Subpart C that are applicable to the hazards associated with WTS scope of work; and how WTS complies with any compliance orders issued by the Secretary pursuant to §851.4. The fundamental programs for the WTS safety program and safety culture foundation include an ISMS and the DOE Voluntary Protection Program (VPP).

#### 8.1 ISMS

WTS integrates safety into management and work practices to accomplish the WIPP mission while protecting the worker, the public, and the environment. The ISMS described in the WTS Integrated Safety Management System Description, fulfills expectations of the DOE by taking into account the core functions and guiding principles needed to "do work safely," as mandated by the DOE through its directives.

The five core safety management functions of the ISMS at WIPP are as follows:

- 1. Define the Scope of Work Missions are translated into work; expectations are set; tasks are identified and prioritized; and resources are allocated.
- 2. Analyze the Hazards Hazards associated with the work are identified, analyzed, and categorized.
- 3. Develop and Implement Hazard Controls Applicable standards and requirements are identified and agreed-upon; controls to prevent or mitigate hazards are identified; the safety envelope is established; and controls are implemented. The quality requirements of WP 13-1, Washington TRU Solutions LLC Quality Assurance Program Description, support the objectives of the safety management system by ensuring that work is performed safely under controlled conditions.
- 4. Perform Work Within Controls Readiness is confirmed and work is performed safely.
- 5. Provide Feedback and Continuous Improvement Feedback information on the adequacy of controls is gathered; opportunities for improving the definition and planning of work are identified and implemented; line and independent oversight is conducted.

In addition, the ISMS guiding principles provide the basis for daily operations.

<u>Line Management Responsibility for Safety</u> – Line managers (section and group managers) are responsible for the protection of the worker, the public, and the environment. A line manager is an individual who has the responsibility and the authority for getting the job done.

<u>Clear Roles and Responsibilities</u> – Clear and unambiguous lines of authority and responsibility for ensuring safety are established and maintained at all organizational levels.

<u>Competence Commensurate with Responsibilities</u> – Personnel possess the experience, knowledge, skills, and abilities necessary to discharge their responsibilities in a safe, environmentally sound manner.

<u>Balanced Priorities</u> – Resources are allocated effectively to address safety, environmental, programmatic, and operational considerations. Protecting the environment, and the safety and health of the public and workers is the number one priority and consideration for the conduct of operations.

<u>Identification of Safety Standards and Requirements</u> – Before work is performed, the associated hazards are evaluated, and an agreed-upon set of safety standards and

requirements and mitigating actions is established, which, if properly implemented, provide adequate assurance that the worker, the public, and the environment are protected from adverse consequences. Work processes are continually assessed, and assessments are used to improve work practices.

<u>Hazard Controls Tailored to Work Being Performed</u> – Administrative and engineering controls to prevent and mitigate hazards are tailored to the work being performed and address associated hazards.

Operations Authorization – The conditions and requirements to be satisfied for operations to be initiated and conducted are clearly established and agreed upon. DOE/WTS 01-3181, *Authorization Agreement for the Waste Isolation Plant*, serves as the base operations authorization for work conducted at the WIPP site. These activities involving the handling, storage, and disposal of radioactive materials at WIPP are conducted in accordance with the terms and conditions of the Authorization Agreement (AA). The AA, initiated by the CBFO, summarizes, in one concise document, the terms and conditions binding on WTS for operation of the facility in a manner that preserves the DOE's basis for authorizing facility operation. The initiation and conduct of characterization operations is based on the Hazardous Waste Facility Permit certification requirements being met and finalization of an interface agreement with the host site in conjunction with operating within the parameters of the host site's authorization basis.

Individual Attitude and Responsibilities for Safety – Every WTS employee accepts responsibility for safe mission performance. Individuals demonstrate a questioning attitude by challenging assumptions, investigating anomalies, and considering potential adverse consequences of planned actions. All employees are mindful of work conditions that may impact safety, and assist each other in preventing unsafe acts or behaviors.

<u>Operational Excellence</u> – WTS achieves sustained high levels of operational performance, encompassing all activities to meet mission, safety, productivity, quality, environmental, and other objectives. High reliability is achieve through a focus on operations, conservative decision-making, open communications, deference to expertise, and systematic approaches to eliminate or mitigate error-likely situations.

Oversight for Performance Assurance – Competent, robust, periodic and independent oversight is an essential source of feedback that verifies expectations are being met and identifies opportunities for improvement. Performance assurance activities verify whether standards and requirements are being met. Performance assurance through conscious, directed, independent reviews at all levels brings fresh insights and observations to be considered for safety and performance improvement.

<u>Organizational Learning for Performance Improvement</u> – WTS demonstrates excellence in performance monitoring, problem analysis, solution planning, and solution

implementation. WTS encourages openness and trust, and cultivates a continuous learning environment.

#### 8.2 VPP

The DOE VPP is a program that recognizes DOE contractors that have excellent safety and health programs. DOE/EH-0433, *U.S. Department of Energy Voluntary Protection Program* states, "DOE-VPP identifies areas where DOE contractors and subcontractors can go beyond compliance with DOE Orders and OSHA (Occupational Safety and Health Administration) standards. The program encourages the creative stretch for excellence through systematic approaches and cooperative efforts involving managers, employees, and the Department at DOE sites. Furthermore, "The purpose of DOE-VPP is to recognize and promote excellence in contractor occupational health and safety programs. These programs, composed of management systems for preventing and controlling occupational hazards not only ensure that DOE Orders are met, but go beyond requirements to provide the best feasible health and safety protection at that site."

Westinghouse (the predecessor to WTS) was awarded the first DOE VPP "STAR" in 1994, the highest VPP recognition category. Three recertification reviews have been conducted since then with the STAR status maintained each time. The last recertification for WTS was October 2005. Since the VPP program has been pivotal to WIPP's excellent safety culture, the components of the VPP program are heavily integrated within current processes.

#### The VPP elements are:

- Management Leadership
- Employee Involvement
- Worksite Analysis
- Hazard Prevention and Control; and
- Safety and Health Training

Fundamentally, the VPP program is an organizational culture approach that by definition requires a commitment well above and beyond basic safety and health requirements. Though WTS is heavily committed to maintaining that safety culture excellence, the only direct VPP program inclusion for purposes of meeting 851 Rule expectations through this WTS WSHPD is Management Policy (MP) 1.12, Worker Protection Policy.

### 9.0 ADMINISTRATION OF THE WORKER SAFETY & HEALTH PROGRAM (10 CFR §851.11 [B], [C]) (10 CFR §851.12, AND 10 CFR §851.13)

The WTS WSHPD is maintained by the WTS Safety and Health Department Manager with updates submitted for approval by the CBFO Manager as the Head of DOE Field Element. A copy of the approved program is maintained in the Quality and

Manufacturing Integrated System (Q&MIS) and in the CCP controlled document system to ensure access by affected workers and their designated representatives.

The initial WTS WSHPD's (WTS WSHPD) effective implementation date was May 24, 2007. Though approved by the CBFO before that date, implementation was not considered as complete until May 24, 2007. Since the WTS WSHPD aligns with and references responsibilities in various host site's 851 Plans, full implementation was delayed until May 24, 2007, to allow sufficient time for host site plans to be fully in place, so that implementation date was the same date for all covered workplaces and work scopes within the WTS WSHPD. Therefore, the annual reviews of this program are considered due on May 24 each year, again allowing coordination with host site plans changes.

Reviews will be conducted and any subsequently required updates of the WTS WSHPD will be submitted whenever a significant change or addition to the program is made, including a change of WIPP Management and Operating (M&O) Contractors, or prime contractors at the generator sites under which WTS conducts characterization activities.

An annual review will be conducted including provisions to DOE of either an updated worker safety and health program for approval, or a letter stating that no changes are necessary in the currently approved worker safety and health program.

Revisions/updates will include incorporation in the worker safety and health program of any changes, conditions, or workplace safety and health standards directed by the DOE consistent with the requirements of the 851 Rule, the DOE Acquisition Regulation 970.5204-2, Laws, Regulations and DOE Directives and associated contract clauses.

Updates will go through the WTS review process, with concurrence by the CBFO before final submittal and subsequent implementation. The WIPP Bargaining Unit will also be notified of any updates upon receipt of CBFO approval of those updates pursuant to §851.11(d). WTS will ensure that WSHP requirements changes that affect the labor agreement are appropriately addressed with the Bargaining Unit consistent with the federal labor laws. There are no affected bargaining units with WTS characterization activities. Subcontractors employing Bargaining Unit personnel are responsible for conducting their own notifications.

#### 10.0 NEW WORK SCOPES

New work scope at the WIPP will be incorporated under the current WTS WSHPD. New work scope involving CCP activities at the generator sites and related Part 851 responsibilities will be aligned in interface agreements as follows:

 Management Responsibilities and Worker Rights and Responsibilities—Joint Responsibilities under the Host 851 Plan and WTS WSHPD.

- Hazard Identification and Assessment—Responsibility of the Host Site per their 851 Plan.
- Hazard Prevention and Abatement-Joint Responsibilities under the Host 851 Plan and WTS WSHPD.
- Compliance with Safety and Health Standards—Host Site per their 851 Plan for Beryllium Program per 10 CFR 850, including beryllium medical surveillance, 29 CFR 1910, ANSI Z88.2, NFPA standards. Joint Responsibility for 29 CFR 1904 Recording and Reporting Occupational Injuries and Illnesses and the rest is anticipated to not be applicable.
- Construction Safety, Explosives Safety, Firearms Safety, and Biological Safety are anticipated to not be applicable.
- Fire Protection, Pressure Safety, and Industrial Hygiene—Host Site per their 851 Plan.
- Occupational Medical—WTS WSHPD, with local facility emergency response per Host Site 851 Plan.

If the interface agreement for the new work scope aligns with the above responsibilities, the new work scope can be added to the WTS WSHPD with the next scheduled annual update. If the responsibilities vary from the above list, the WTS WSHPD must be changed accordingly.

### 11.0 MANAGEMENT RESPONSIBILITIES (SUBPART C, §851.20([A])

WTS is committed to the safety and health of their workforce. This section is applicable to WTS facilities and work scopes, including subcontractors working at the covered workplaces in accordance with their statement of work. This commitment is specifically demonstrated in the following documents reflecting appropriate Part 851 implementation.

- 1. Establishment of written policy, goals, and objectives for the worker safety and health program is achieved through the implementation of steps in the WTS Integrated Safety Management System Description, through the CBFO interface and budget/contract process, as well as through MP 1.29, Mission, Goals, and Responsibilities.
- 2. As reflected in MP 1.12, WTS uses qualified worker safety and health staff, to direct and manage the safety program. This same staff provides subcontractor safety oversight and interface with host site worker safety and health staff to ensure appropriate safety oversight of characterization activities at the host sites.

- 3. WTS assigns worker safety and health program responsibilities, evaluates personnel performance, and holds personnel accountable for worker safety and health performance. The formal process for this activity is further described in management policies MP 1.7, Employee Performance Appraisal and Development, and MP 1.12. Safety assessments of subcontractors working at WTS covered worksites are conducted in accordance with the Contractor Assurance Program.
- 4. WTS provides mechanisms to involve workers and their elected representatives in the development of the worker safety and health program goals, objectives, and performance measures and in the identification and control of hazards in the workplace. This is done through a variety of mechanisms as described in MP 1.12, including the use of Safety Committees. Subcontractors are invited to participate in safety committees and other safety activities at WIPP such as safety fairs, awareness activities, etc. For characterization activities, WTS personnel and subcontractors are encouraged to volunteer and join the various Host Site safety committees and activities, as well as being involved in the development of CCP specific goals, and participating in tasks to identify and control hazards in their work areas.
- 5. WTS provides workers and subcontractors working at covered workplaces with access to information relevant to the worker safety and health program in a variety of manners including Porcelain Press, pre-job briefings, and other techniques as committed to in MP 1.12.
- 6. WTS establishes procedures for workers to report without reprisal job-related fatalities, injuries, illnesses, incidents, and hazards and make recommendations about appropriate ways to control those hazards. These processes include MP 1.12 and WP 12-IS.01, Industrial Safety Program Structure and Management.
- 7. In WP 12-IS.01, WTS provides for prompt response to such reports and recommendations.
- 8. MP 1.12 provides for regular communication with workers about workplace safety and health matters.
- 9. MP 1.2, Work Suspension and Stop-Work Direction, establishes the process to permit workers including subcontractors to stop work or decline to perform an assigned task because of a reasonable belief that the task poses an imminent risk of death, serious physical harm, or other serious hazard to workers, in circumstances where the workers believe there is insufficient time to utilize normal hazard reporting and abatement procedures.
- 10. MP 1.12 and WP 12-IS.01 contain the methods used to inform workers of their rights and responsibility by appropriate means, including posting the

DOE-designated Worker Protection Poster in the workplace where it is accessible to workers, including subcontractors.

### 12.0 WORKER RIGHTS AND RESPONSIBILITIES (SUBPART C, §851.20[B])

This section is applicable to WTS covered workplaces and work scopes. Knowledge and support of Worker's Rights and Responsibilities is central to the WTS safety culture. These are unique in several aspects. For example, the Mine Safety and Health Act (MSHA) formally requires a "miner's representative" to ensure the miners feel free to present issues to mine inspectors. Very early in the WIPP Project, management supported the unique position of allowing each person to be their own "miner's representative." In later years a Bargaining Unit formed, but remained committed to individual rights and responsibilities for safety as the tradition had already been established in MSHA implementation and VPP program, through open door policies, WIPP Forms, and other such forums that demonstrated the expectations key to our excellent safety culture. Employees are made aware of their rights and responsibilities as workers from the beginning of their employment, starting with New Employee Orientation and General Employee Training. The rights and responsibilities specified in 10 CFR Part 851 as follows are implemented through posting of the DOE VPP Rights on WTS Human Resource Bulletin Boards at covered workplaces, and through implementation of the following WTS policies and procedures; WP 12- IS.01, WP 12-IH.02, Industrial Hygiene Program, MP 1.2; MP 1.12; and MP 1.28, Integrated Safety Management. Those rights and responsibilities include:

- 1. Participate in activities described in this section on official time;
- 2. Have access to DOE safety and health publications; the worker safety and health program for the covered workplace; the standards, controls, and procedures applicable to the covered workplace; the safety and health poster that informs the worker of relevant rights and responsibilities; and limited information on any recordkeeping log (OSHA Form 300). Access is subject to the Freedom of Information Act requirements and restrictions, and the DOE Form 5484.3 (the DOE equivalent to OSHA Form 301) that contains the employees name as the injured or ill worker;
- 3. The right to be notified when monitoring results indicate the worker was overexposed to hazardous materials:
- 4. The right to observe monitoring or measuring of hazardous agents and have the results of their own exposure monitoring;
- 5. Any employee is allowed to accompany any management, auditors, inspectors, etc. during physical inspections of the workplace for the purpose of aiding the inspection. As appropriate, employees are consulted on matters of worker safety and health;

- 6. It is a DOE VPP Right and thus formally posted that employees may request and receive results of inspections and accident investigations; (withholding any privacy act information accordingly);
- 7. Express concerns related to worker safety and health;
- 8. Decline to perform an assigned task because of a reasonable belief that, under the circumstances, the task poses an imminent risk of death or serious physical harm to the worker coupled with a reasonable belief that there is insufficient time to seek effective redress through normal hazard reporting and abatement procedures; and
- 9. MP 1.2 implements the worker right and responsibility to stop work when the worker discovers employee exposures to imminently dangerous conditions or other serious hazards; provided that any stop work authority must be exercised in a justifiable and responsible manner in accordance with procedures established in the approved worker safety and health program.

### 13.0 HAZARD IDENTIFICATION AND ASSESSMENT (SUBPART C, §851.210)

WTS has established procedures to identify existing and potential workplace hazards and assess the risk of associated workers injury and illness. Procedures include methods to:

1. Assess worker exposure to chemical, physical, biological, or safety workplace hazards through appropriate workplace monitoring.

### **WIPP**

At the WIPP site, in accordance with WP 12-IH.02 and WP 12-IH.02-1, Hazard Assessment, initial or baseline surveys of work areas or operations are conducted to identify and evaluate potential worker health risks. Then periodic surveys and exposure monitoring, are implemented as appropriate. The Biennial Status Report and Assessment Strategy provides a periodic baseline of potential hazards on a systemic, sitewide basis, in accordance with DOE G 440.1-3, *Occupational Exposure Assessment*.

### **Characterization Sites**

Per the interface documents workplace monitoring is conducted by the host site under the host site's 851 Plan.

2. Document assessment for chemical, physical, biological, and safety workplace hazards using recognized exposure assessment and testing methodologies and using of accredited and certified laboratories.

### **WIPP**

In accordance with WP 12-IH.02-1, documentation of exposure assessments for chemical, physical, and biological agents and ergonomic stressors is conducted using National Institute for Occupational Safety and Health (NIOSH) or OSHA exposure assessment methodologies, as applicable and available, and use of American Industrial Hygiene Association accredited industrial hygiene laboratories is mandated.

### **Characterization Sites**

Per the interface documents, use of appropriate exposure assessment and testing methodologies and laboratories is conducted by the host site under the host site's 851 Plan, and is not the responsibility of WTS.

3. Record observations, testing, and monitoring results.

### **WIPP**

Observations, testing, and monitoring results are recorded in accordance with WP 13-I.

### **Characterization Sites**

Per the interface documents, recording of observations, testing, and monitoring results are conducted under the host site's 851 Plan.

4. Analyze designs of new facilities and modifications and repairs to existing facilities and equipment for potential workplace hazards.

### **WIPP**

At the WIPP, this requirement is implemented through WP 09, Engineering Conduct of Operations.

#### Characterization Sites

The host facility is responsible for new facilities and modifications and repairs to existing facilities, as that is not within the WTS characterization scope. Any modifications to WTS equipment is controlled to ensure implementation of this requirement through CCP-CM-001, Equipment Change Authorization and Documentation. In addition, plans for installation of new equipment or

modifications of existing equipment are submitted to the host site for their safety review per the Interface Agreement.

5. Evaluate operations, procedures, and facilities to identify workplace hazards;

#### **WIPP**

At the WIPP, this requirement is implemented through a number of integrated assessments such as the Emergency Planning Hazards Survey conducted in accordance with DOE O 151.1C, the worker protection team walkdowns, and the inspections conducted per MP 5.16, Landlord Program. In addition, daily workplace evaluations by workers and management include inspections of tools and equipment, including forklifts, cranes, slings, and PPE, as well as overall workplace conditions, in accordance with the WTS *Integrated Safety Management System Description*.

### **Characterization Sites**

This is a shared responsibility with the host facility. The host facility is responsible for facility hazards though WTS holds employees and subcontractors responsible for identifying workplace hazards including facility hazards per ISM Description. WTS operating procedures are evaluated for workplace hazards as part of the formal document review process in accordance with CCP-QP-010, CCP Document Preparation, Approval, & Control.

Perform routine job activity-level hazard analyses;
 WIPP

At the WIPP site, job activity-level hazard analyses are developed in accordance with WP 12-IS.01-1, Industrial Safety Program-Postings, Warnings, & Hazard Identification, with subcontractor requirements delineated in WP 12-IS.01-6.

### **Characterization Sites**

Job Hazard Analysis (JHAs) are fully incorporated in specific CCP Health & Safety Plans as delineated in CCP-QP-002, CCP Training and Qualification Plan; and CCP-QP-009, Work Control Process. In most cases the JHAs are actually developed by the host site, and are not the responsibility of WTS.

7. Review site safety and health experience information; and

### **WIPP**

At the WIPP site, safety and health experience information is reviewed in site safety statistical reports, through the WTS WP 13-1 trending, WP 15-MD3100, Lessons Learned Program, and the safety trending from the WP 04-IM1000, Issues Management Program Processing of WIPP Forms, as well as the leading indicators and qualitative safety performance measures from the WTS Integrated Safety Management System Description.

### **Characterization Sites**

This is a shared responsibility with the host facility and is done through the host site's 851 Plan and through WTS WP13-1 trending, and the lessons learned program implemented through WP CCP-QP-025, Lessons Learned Program Management.

8. Consider interaction between workplace hazards and other hazards such as radiological hazards.

#### **WIPP**

The interactions between workplace hazards and other hazards such as radiological hazards are analyzed in the CH Documented Safety Analysis and the RH Documented Safety Analysis as well as the implementation direction provided in WP12-IS.01 procedures.

#### Characterization Sites

Since the radiological programs are under the cognizance of the host site, this function is accomplished by the host site in accordance with their 851 Plan.

WTS does not have any oversight of any closure facilities at this time; therefore the section of Part 851 pertinent to that area is not part of the WTS WSHPD.

### 14.0 HAZARD PREVENTION AND ABATEMENT (SUBPART C, §851.22)

WTS establishes and implements a hazard prevention and abatement process to ensure that identified and potential hazards are prevented or abated in a timely manner.

That process is applicable to WTS work scope and is incorporated in WIPP documents - WP 12-FP.01, WIPP Fire Protection Program; MP 1.12; WP 12-IS.01; and MP 1.2; WP 15-PC3609, Preparation of Purchase Requisitions; and WP 12-IS.01-6.

- (1) For hazards identified either in the facility design or during the development of procedures, controls must be incorporated in the appropriate facility design or procedure.
- (2) For existing hazards identified in the workplace, contractors must;
  - (i) Prioritize and implement abatement actions according to the risk to workers;
  - (ii) Implement interim protective measures pending final abatement; and
  - (iii) Protect workers from dangerous safety and health conditions;

WTS selects hazard controls per the WTS *Integrated Safety Management Description* based on the following hierarchy:

- (1) Elimination or substitution of the hazards where feasible and appropriate;
- (2) Engineering controls where feasible and appropriate
- (3) Work practices and administrative controls that limit worker exposures; and
- (4) Personal protective equipment

WTS addresses hazards when selecting or purchasing equipment, products, and services using a graded approach at the WIPP site in accordance with WP 09-CN3005, Graded Approach to Application of QA Controls, and for the characterization activities at the host sites in accordance with CCP-QP-001, Graded Approach.

### 15.0 SAFETY AND HEALTH STANDARDS (SUBPART C, §851.23)

WTS complies with the following safety and health standards that are applicable to the hazards at the WIPP site and the characterization activities host sites, per WP 12-IS.01 and the applicable host 851 Plan.

- Title 10 CFR Part 850, "Chronic Beryllium Disease Prevention Program," (CBDPP) operations at WIPP, LANL, SRS, ORNL, and ANL-E are currently not within the scope of 10 CFR 850. At INL it is the responsibility of the host site. While WTS operations do not involve beryllium activities as defined in this standard, there is some possibility that beryllium exposure might occur post incident. Accordingly CBDPP programs are in place at WIPP and at Oak Ridge (per the host site plan) to address potential incidents or releases.
- 2. Title 29 CFR, Parts 1904.4-1904.11; 29 CFR §§1904.29-1904.33; 29 CFR §1904.44 and §1904.46, "Recording and Reporting Occupational

Injuries and Illnesses," are applicable to WTS covered workplaces, and is covered under the WTS WSHPD for WTS employees. Subcontractors at the WIPP site report through WTS, and subcontractors at host sites do dual reporting, with the host site responsible for the total site reporting.

- 3. Title 29 CFR Part 1910, "Occupational Safety and Health Standards," excluding 29 CFR §1910.1096, "Ionizing Radiation," is applicable at the WIPP site surface areas, it is not applicable to the mine, which is covered by MSHA standard. At the host sites, this responsibility falls to the host site as the cognizant operator of the facility and based on the interface agreements for safety responsibilities.
- 4. Title 29 CFR Part 1926, "Safety and Health Regulations for Construction," is applicable only to the WIPP site, as the characterization activities work scopes do not involve any construction activities. This requirement is implemented at the WIPP in the Industrial Safety Program as referenced above in conjunction with WP 09-DC.01, Construction Management Program.
- 5. Title 30 CFR Part 57, "Safety and Health Standards-Underground Metal and Nonmetal Mines." Though applied for worker protection and consistency throughout the WIPP site, for purposes of Part 851, this standard applies only to the WIPP site underground area.
- 6. American Conference of Governmental Industrial Hygienists (ACGIH), "Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices," (2005) when the ACGIH Threshold Limit Values (TLVs) are lower (more protective) than permissible exposure limits in 29 CFR Part 1910. When the ACGIH TLVs are used as exposure limits, contractors must nonetheless comply with the other provisions of any applicable expanded health standard found in 29 CFR 1910. The WIPP Industrial Hygiene Program (WP 12-IH.02) is compliant with this requirement.
- 7. American National Standards Institute (ANSI) Z88.2, "American National Standard for Respiratory Protection," 2004 is fully implemented in the WP 12-IH series of procedures for the WIPP site. Characterization activities at the host sites fall under the direction of the host site's respiratory protection program per their 851 Plan.
- 8. ANSI Z136.1, "Safe Use of Lasers," (2000) this standard is applicable. However, no Class 3b or Class 4 laser or laser systems are in use at WIPP or in characterization activities at the host sites. WP 12-IH.02-7, WIPP Industrial Hygiene Program Lasers, Lighting, Pest Control, Sanitation, and Temperature procedure defines control mechanisms for introduction of new laser or laser systems to invoke appropriate requirements if a Class 3b or Class 4 laser is purchased.

- 9. ANSI Z49.1, "Safety in Welding, Cutting and Allied Processes," sections 4.3 and E4.3 (1999). This standard is only applicable at the WIPP site, as the characterization activities work scope does not include any welding, cutting, or allied processes. For the WIPP, this portion of the standard on personal protective equipment is implemented through WP 12-IS.01-4, Emergency and Personal Protective Equipment.
- 10. National Fire Protection Association (NFPA) 70, "National Electrical Code" (2005) this standard is applicable to new facilities, and modifications and repairs to existing facilities. As such it will be appropriately incorporated at that time based on WP 09 requirements for the identification of applicable standards. This standard is applicable to WTS work scope for characterization activities at the host sites. However, WTS does not do any electrical work at the host sites as electrical services are provided by the host sites.
- 11. NFPA 70E, "Standard for Electrical Safety in the Workplace (2004) This standard is only applicable at the WIPP site for this WTS WSHPD. At the host sites, the electrical safety program is under the cognizance of the host site per their 851 Plan. For the WIPP, this standard is implemented through WP12-IS.01-7, General Electrical Safety, and WP12-IS.01-7HV, Craft Manual Electrical Safety.

The following standards listed in §851.23, are not applicable to the WTS WSHPD plan as they are not applicable to any works copes currently being conducted at any of the covered workplaces.

- 1. Title 29 CFR Part 1915, "Shipyard Employment"
- 2. Title 29 CFR Part 1917, "Marine Terminals"
- 3. Title 29 CFR Part 1918, "Safety and Health Regulations for Longshoring"
- 4. Title 29 CFR Part 1928, "Occupational Safety and Health Standards for Agriculture"

### 16.0 FUNCTIONAL AREAS (SUBPART C, §851.24)

WTS has a structured approach to our worker safety and health program which includes provisions for the following functional areas as applicable based on the location in our worker safety and health program.

### 1. Construction Safety (Appendix A.1)

The construction safety functional area is only applicable at the WIPP site. WTS subcontracts construction work scope as needed. WTS subcontractors are required to comply with local, state, and federal

safety, health, and environmental regulations. Each subcontract has a designated Subcontractor Technical Representative (STR) to monitor the work practices of the subcontractor. The implementing procedures for construction safety are WP 15-PC3609; WP 15-PC3605, Proposal, Competition, Identification, Selection, Evaluation, and Award; WP 12-IS.01-6; and WP 09-DC.01. These documents include the following requirements.

- A. For each definable construction activity:
  - Prepare and have approved by the construction manager an activity hazard analysis prior to commencement of affected work. Such analyses must:
    - (i) Identify foreseeable hazards and planned protective measures;
    - (ii) Address further hazards revealed by supplemental site information (e.g., site characterization data, as-built drawings) provided by the construction manager;
    - (iii) Provide drawings and/or other documentation of protective measures for which applicable OSHA standards require preparation by a Professional Engineer or other qualified professional, and
    - (iv) Identify competent persons required for workplace inspections of the construction activity, where required by OSHA standards.
  - Ensure workers are aware of foreseeable hazards and the protective measures described within the activity analysis prior to beginning work on the affected activity.
  - Require that workers acknowledge being informed of the hazards and protective measures associated with assigned work activities. Those workers failing to utilize appropriate protective measures must be subject to the construction contractor's disciplinary process.
- B. During periods of active construction (i.e., excluding weekends, weather delays, or other periods of work inactivity), the construction contractor must have a designated representative on the construction worksite who is knowledgeable of the project's hazards and has full authority to act on behalf of the construction

contractor. The contractor's designated representative must make frequent and regular inspections of the construction worksite to identify and correct any instances of noncompliance with project safety and health requirements.

- C. Workers are instructed to report to the STR or Central Monitoring Room (CMR), hazards not previously identified or evaluated. If immediate corrective action is not possible or the hazard falls outside of project scope, the construction worker must immediately notify affected workers, post appropriate warning signs, implement needed interim control measures, and notify the construction manager of the action taken. The contractor or the designated representative must stop work in the affected area until appropriate protective measures are established.
- D. The construction contractor must prepare a written construction project safety and health plan to implement the requirements of this section and obtain approval of the WTS WSHPD by the WTS STR and Safety prior to commencement of any work covered by the WTS WSHPD. In the WTS WSHPD, the contractor must designate the individual(s) responsible for on-site implementation of the WTS WSHPD, specify qualifications for those individuals, and provide a list of those project activities for which subsequent hazard analyses are to be performed. The level of detail within the construction project safety and health plan should be commensurate with the size, complexity and risk level of the construction project.

### 2. Fire Protection (Appendix A.2)

The fire protection functional area is only applicable at the WIPP site as the host organization is responsible for the fire protection functions at the other WTS work sites. Though some pieces of equipment used in characterization activities at the host sites include fire suppression related designs, which undergo WIPP reviews. The final equipment is signed off per the host site's fire protection program.

The WIPP Fire Protection Program is based upon DOE Orders 420.1 and 440.1 guidance for programmatic, design criteria, and worker protection program elements. WTS has implemented a comprehensive fire safety and emergency response program to ensure the safety of employees, contractor personnel, visitors and members of the general public. The WIPP Emergency Management Program provides the foundation for the WTS WSHPD to ensure an efficient and effective response operation that, should an emergency occur, minimizes the impact of emergency events on the health and safety of workers,

responders, the general public, the environment, and the WIPP mission. The WIPP Fire Protection Program identifies the various activities, regulations, and personnel responsibilities necessary for assuring fire safety. The WIPP Fire Protection Program incorporated DOE Orders and Directives related to fire safety, unless explicit relief has been granted by the DOE Authority Having Jurisdiction for fire protection. NFPA codes and standards, and other applicable federal, state, and local fire protection and life safety requirements have also been adopted and/or followed. Accordingly the following Part 851 requirements are implemented in WIPP procedures; WP 12-9, Emergency Management Program; WP 12-FP.01; WP 12-ER4908, Surface Fire Response; and WP 12-ER4911, Underground Fire Response.

- A. WTS has implemented a comprehensive fire safety and emergency response program per WP 12-9, WIPP Emergency Management Program to protect workers commensurate with the nature of the work that is performed. This includes appropriate facility and sitewide fire protection, fire alarm notification and egress features, and access to a fully staffed, trained, and equipped emergency response organization that is capable of responding in a timely and effective manner to site emergencies.
- B. The fire protection program includes those fire protection criteria and procedures, analyses, hardware and systems, apparatus and equipment, and personnel which ensure that the objective in (A) of this section is met. The Fire Protection Program includes meeting applicable building codes and NFPA codes and standards.

### 3. Explosives Safety--Not Applicable (Appendix A.3)

None of the WTS works cope involves the use of explosives. Therefore, this section of the rule is considered not applicable.

### 4. Pressure Safety (Appendix A.4)

This section is not applicable to the characterization work scopes. Only portions of the standards referenced are applicable at WIPP.

A. Contractors must establish safety policies and procedures to ensure that pressure systems are designed, fabricated, tested, inspected, maintained, repaired, and operated by trained and qualified personnel in accordance with applicable and sound engineering principles. The implementation of this requirement is governed in WP-09 and WP 13-1.

- B. Contractors must ensure that pressure vessels, boilers, air receivers, and supporting piping systems conform to:
  - The applicable American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (2004); sections I through section XII including applicable Code Cases (incorporated by reference, see §851.27)
  - 2. The applicable ASME B31 (Code for Pressure Piping) standards as indicated below; and or as indicated in paragraph (b)(3) of this section:
    - (i) B31.1—2001—Power Piping, and B31.1a—2002—Addenda to ASME B31.1—2001 (incorporated by reference, see § 851.27); is not applicable
    - (ii) B31.2—1968—Fuel Gas Piping (incorporated by reference, see §851.27); is not applicable
    - (iii) B31.3—2002—Process Piping (incorporated by reference, see §851.27); is not applicable
    - (iv) B31.4—2002—Pipeline Transportation, Systems for Liquid Hydrocarbons and Other Liquids (incorporated by reference, see §851.27); is not applicable
    - (v) B31.5—2001—Refrigeration Piping and Heat Transfer Components, and B31.5a—is not applicable
    - (vi) 2004, Addenda to ASME B31.5—2001(incorporated by reference, see §851.27); is not applicable
    - (vii) B31.8—2003—Gas Transmission and Distribution Piping Systems (incorporated by reference, see §851.27); is not applicable
    - (viii) B31.8S—2001—Managing System Integrity of Gas Pipelines (incorporated by reference, see §851.27); is not applicable
    - (ix) B31.9—1996—Building Services Piping (incorporated by reference, see §851.27); is applicable.

- (x) B31.11—2002—Slurry Transportation Piping Systems (incorporated by reference, see §851.27); and (x) is not applicable
- (xi) B31G—1991—Manual for Determining Remaining Strength of Corroded Pipelines (incorporated by reference, see §851.27). is not applicable

The strictest applicable state and local codes. The requirements for this section are implemented through WP 09.

- C. When national consensus codes are not applicable (because of pressure range, vessel geometry, use of special materials, etc.), contractors must implement measures to provide equivalent protection and ensure a level of safety greater than or equal to the level of protection afforded by the ASME or applicable state or local code. Measures must include the following:
  - (1) Design drawings, sketches, and calculations must be reviewed and approved materials, in-process fabrications, nondestructive tests, and acceptance test.
  - (2) Qualified personnel must be used to perform examinations and inspections of materials, in-process fabrications, nondestructive tests, and acceptance tests per WP 13-1.
  - (3) Documentation, traceability, and accountability must be maintained for each pressure vessel or system, including descriptions of design, pressure conditions, testing, inspection, operation, repair, and maintenance.

The requirements for this section are implemented through WP 09.

### 5. Firearms Safety (Appendix A. 5)

This section is only applicable to the WTS WIPP facility as security services are not part of the WTS work scope at the other facilities. The security services subcontract at WIPP does involve the use of firearms. Therefore, firearms safety policies and procedures for security operations, and training to ensure proper accident prevention controls are in place. Those procedures are components of the WIPP Firearms Procedural Manual including FAP-001 through FAP-008; which address safety and storage of DOE weapons, firearms cleaning, armory operations, firearms safety, weapons qualification, live fire range administrative safety requirements, and other applicable areas. Written

procedures address firearms safety, engineering and administrative controls, as well as personal protective equipment requirements.

#### A. Procedures are established for:

- 1. Storage, handling, cleaning, inventory, and maintenance of firearms and associated ammunition;
- 2. Activities such as loading, unloading, and exchanging firearms. These procedures address the use of bullet containment devices and those techniques to be used when no bullet containment device is available.
- 3. Use and storage of pyrotechnics, explosives, and/or explosive projectiles;
- 4. Handling misfires, duds, and unauthorized discharges;
- 5. Live fire training, qualification, and evaluation activities;
- 6. Training and exercises using engagement simulation systems;
- 7. Medical response at firearms training facilities; and
- 8. Use of firing ranges by personnel other than DOE or DOE contractor protective forces personnel is not addressed in these procedures, as the range actually belongs to the Eddy County Sheriff's department and is thus used by other personnel under their cognizance. However, the firing range has been thoroughly reviewed, controls in place, and authorized for use by the CBFO.
- B. Personnel responsible for the direction and operation of the firearms safety program are professionally qualified and have sufficient time and authority to implement the related procedures.
- C. Firearms instructors and armorers have been certified by the Safeguards and Security National Training Center to conduct the level of activity provided. Personnel must not be allowed to conduct activities for which they have not been certified.
- D. Formal appraisals assessing implementation of procedures, personnel responsibilities, and duty assignments to ensure overall policy objectives and performance criteria are being met by qualified personnel.

- E. Implement procedures related to firearms training, live fire range safety, qualification, and evaluation activities, including procedures requiring that:
  - Personnel must successfully complete initial firearms safety training before being issued any firearms. Authorization to remain in armed status will continue only if the employee demonstrates the technical and practical knowledge of firearms safety semiannually;
  - 2. Authorized armed personnel must demonstrate through documented limited scope performance tests both technical both technical and practical knowledge of firearms handling and safety on a semiannual basis;
  - Firearms training lesson plans must incorporate safety for all aspects of firearms training task performance standards. The lesson plans must follow the standards set forth by the Safeguards and Security Central Training Academy's standard training programs;
  - 4. Firearms safety briefings must immediately precede training, qualifications, and evaluation activities involving live fire and/or engagement simulation systems;
  - 5. A safety analysis was approved by the CBFO and developed for the facilities and operation of each live fire range prior to the re-arming of the guard initiative. In the future, it will be reviewed, updated, and approved before the implementation of any new training, qualification, or evaluation activity. Results of these analyses must be incorporated into procedures, lesson plans, exercise plans, and limited scope performance tests;
  - 6. Firing range safety procedures are conspicuously posted at all range facilities; and
  - 7. Live fire ranges, approved by the Head of DOE Field Element, must be properly sited to protect personnel on the range, as well as personnel and property not associated with the range. To meet this requirement, the firing range has been thoroughly reviewed, controls are in place, and the range was authorized for use by the CBFO.
- F. WTS ensures that the transportation, handling, placarding, and storage of munitions conform to the applicable DOE requirements.

### 6. Industrial Hygiene (Appendix A.6)

Based on interface agreements, Industrial Hygiene at the host sites is under the host site's 851 Plan as the hosts provide the industrial hygiene program and services in support of the characterization activities at their site. WTS has implemented a comprehensive industrial hygiene program that includes at least the following elements.

- A. Initial or baseline surveys and periodic resurveys and/or exposure monitoring as appropriate of work areas or operations to identify and evaluate potential worker health risks;
  - WP 12-IH.02 addresses WIPP facility WTS employees and subcontracts
- B. Coordination with planning and design personnel to anticipate and control health hazards that proposed facilities and operations would introduce;
  - WP 09-CN3018, Design Verification, implements the process for this at the WIPP site.
  - For characterization activities, CCP-CM-001 ensures that the appropriate host support services are incorporated.
- C. Coordination with cognizant occupational medical, environmental, health physics, and work planning professionals; is implemented at the WIPP in conjunction with the 12-IH series of procedures. Coordination at the host sites for characterization activities is defined in the interface agreements.
- D. Policies and procedures to mitigate the risk from identified and potential occupational carcinogens; WP 12-IH.02-1 addresses how we assess chemical hazards for WIPP operations. The characterization activities are conducted under the auspices of the host site's carcinogen program per their 851 Plan.
- E. The requirement for professionally and technically qualified industrial hygienists to manage and implement the industrial hygiene program; is implemented through WP 12-IH.02. This requirement as it pertains to the host sites is implemented through their 851 Plans accordingly per the interface agreements, the hosts provide the industrial hygiene program, and the qualified industrial hygienists accordingly.

F. The requirement related to use of respiratory protection equipment tested under the DOE Respirator Acceptance Program for Supplied-Air Suits (DOE-Technical Standard 1167–2003) is not applicable to any WTS work scope as National Institute for Occupational Safety and Health-approved respiratory protection exists for the applicable DOE assigned, WTS related tasks.

### 7. Biological Safety (Appendix A.7)

None of the WTS work scope at any covered workplaces includes work involving biological etiologic agents. Therefore this section of the rule is not considered applicable.

### 8. Occupational Medicine (Appendix A.8)

The occupational medicine program is implemented through WP 15-HS.02, Occupational Medical Program, for WTS activities. Management of subcontractors in accordance with this requirement is done on a case by case basis as coordinated with WTS Occupational Health Services and may include direct participation by subcontractors in the WTS occupational medicine program, participation in the host sites occupational medical program, or requirement for their company to meet the occupational medical requirements in 10 CFR Part 851 as part of their contract with WTS. Previously subcontractors did not participate in the occupational medical program. With the changes in expectations related to 10 CFR Part 851, determinations of an effective path forward involved having to interpret some potentially ambiguous requirements. The occupational medical program includes oversight by a physician licensed in the state of New Mexico. Though WTS has employees and subcontractors in several states based on characterization activities, the primary medical director will be licensed in New Mexico where the primary facility is located. Lists of hazards, and expectations regarding preemployment evaluations, will be given to subcontractors, and they may choose their own physician to provide those services. Exposure related physicals (such as respiratory), may be provided by the subcontractor's physician in accordance with WTS Occupational Medical Program, or by the host facility. The WTS wellness program as shared with subcontractors will consist primarily of educational materials as the subcontractors are working multiple locations across the country. WTS interprets the requirements for a termination physical evaluation to be based on termination from the contract/DOE complex, vs. leaving a specific facility as our characterization activities subcontractors frequently move from site to site throughout the DOE complex while operating to the same contracts. The occupational medical provider as listed to meet the 10 CFR Part 851 requirements may mean the physician subcontracted to provide services, or as in the case of review

of corporate level Employee Assistance Programs (EAP), may mean the WTS Occupational Health Services staff directing the WTS Occupational Medical Program overall.

- A. WP 15-HS.02 is the implementing document establishing how WTS provides or requires comprehensive occupational medical services to workers employed at a covered work place who:
  - 1. Work on a DOE site for more than 30 days in a 12-month period; or
  - 2. Are enrolled for any length of time in a medical or exposure monitoring program required by 10 CFR Part 851 and/or any other applicable Federal, State or local regulation, or other obligation.
- B. The WTS Occupational Medical Services are under the direction of a graduate of a school of medicine or osteopathy who is licensed for the practice of medicine in the state of New Mexico, which is the home office for WTS and where the WIPP is located.
- C. Occupational medical physicians, occupational health nurses, physician's assistants, nurse practitioners, psychologists, employee assistance counselors, and other occupational health personnel providing occupational medical services are licensed, registered, or certified as required by Federal or NM state law as required.
- D. WTS provides the occupational medical providers access to hazard information by promoting its communication, coordination, and sharing among operating and environment, safety, and health protection organizations.
  - 1. WTS and subcontractors provide the occupational medical providers with access to information on the following:
  - 2. Current information about actual or potential work-related site hazards (chemical, radiological, physical, biological, or ergonomic);
  - 3. Employee job-task and hazard analysis information, including essential job functions;
  - Actual or potential work-site exposures of each employee;

- 5. Personnel actions resulting in a change of job functions, hazards or exposures.
- 6. WTS managers notify the WIPP Occupational Health Services Office when an employee has been absent because of an injury or illness for more than 5 consecutive workdays (or an equivalent time period for those individuals on an alternative work schedule);
- 7. WTS provides the occupational medical provider information on, and the opportunity to participate in, worker safety and health team meetings and committees;
- 8. WTS provides occupational medical providers access to the workplace for evaluation of job conditions and issues relating to workers' health.
- E. WTS designates an occupational medical provider and requires them in accordance with WP 15-HS.02 and 10 CFR Part 851 to:
  - 1. Plan and implement the occupation medical services; and
  - 2. Participate in worker protection teams to build and maintain necessary partnerships among workers, their representatives, managers, and safety and health protection specialists in establishing and maintaining a safe and healthful workplace.
- F. A record, containing any medical, health history, exposure history, and demographic data collected for the occupational medical purposes, is developed and maintained by WTS Occupational Health Services for each employee for whom medical services are provided. Occupational medical records are maintained in accordance with Executive Order 13335, Incentives for the Use of Health Information Technology.
  - 1. Employee medical, psychological, and EAP records are kept confidential, protected from unauthorized access, and stored under conditions that ensure their long-term preservation. Psychological records are maintained separately from medical records and in the custody of the designated psychologist in accordance with 10 CFR §712.38(b)(2).
  - 2. Access to these records is provided in accordance with DOE regulations implementing the Privacy Act and the

Energy Employees Occupational Illness Compensation Program Act.

- G. The occupational medical services provider determines the content of the worker health evaluations, which are conducted under the direction of a licensed physician, in accordance with current sound and acceptable medical practices and pertinent statutory and regulatory requirements, such as the Americans with Disabilities Act.
  - Workers are informed of the purpose and nature of the medical evaluations and tests offered by the occupational medical provider.
    - (i) The purpose, nature and results of evaluations and tests are clearly communicated verbally and in writing to each worker provided testing;
    - (ii) The communication is documented in the worker's medical record; and
  - 2. The following health evaluations are conducted when determined necessary by the occupational medical provider for the purpose of providing initial and continuing assessment of employee fitness for duty.
    - (i) At the time of employment entrance or transfer to a job with new functions and hazards, a medical placement evaluation of the individual's general health and physical and psychological capacity to perform work establishes a baseline record of physical condition and assures fitness for duty.
    - (ii) Periodic, hazard-based medical monitoring or qualification-based fitness for duty evaluations required by regulations and standards, or as recommended by the occupational medical services provider, are provided on the frequency required.
    - (iii) Diagnostic examinations evaluate employee's injuries and illnesses to determine work-relatedness, the applicability of medical restrictions, and referral for definitive care, as appropriate.
    - (iv) After a work-related injury or illness or an absence due to any injury or illness lasting five or more

consecutive workdays (or an equivalent time period for those individuals on an alternative work schedule), a return to work evaluation determines the individual's physical and psychological capacity to perform work and return to duty.

- (v) At the time of separation from employment, individuals are offered a general health evaluation to establish a record of physical condition.
- H. The occupational medical provider monitors ill and injured workers to facilitate their rehabilitation and safe return to work and to minimize lost time and its associated costs.
  - Per WP 12-HS.02 and the occupational medical provider's contract, the occupational medical provider is required to place an individual under medical restrictions when health evaluations indicate that the worker should not perform certain job tasks. The occupational medical provider must notify the worker and contractor management when employee work restrictions are imposed or removed.
- I. Occupational medical provider physician and medical staff, on a timely basis communicate results of health evaluations to management and safety and health protection specialists to facilitate the mitigation of work site hazards.
- J. The occupational medical services provider includes measures to identify and manage the principal preventable causes of premature morbidity and mortality affecting worker health and productivity.
  - 1. WTS includes programs to prevent and manage these causes of morbidity when evaluations demonstrate their cost effectiveness.
  - 2. WTS makes available to the occupational medical provider appropriate access to information from health, disability, and other insurance plans (de-identified as necessary) in order to facilitate this process.
- K. The occupational medical services provider reviews and approves the medical and behavioral aspects of employee counseling and health promotional programs, including the following types:
  - WTS-sponsored or supported EAPs;

- 2. WTS-sponsored or supported alcohol and other substance abuse rehabilitation programs; and
- 3. WTS-sponsored or supported wellness programs.
- L. The occupational medical services provider reviews the medical aspects of immunization programs, blood-borne pathogens programs, and bio-hazardous waste programs to evaluate their conformance to applicable guidelines.
- M. The occupational medical services provider periodically reviews medical emergency response procedures included in site emergency and disaster preparedness plans. The medical emergency responses integrate with nearby community emergency and disaster plans.

### 9. Motor Vehicle Safety (Appendix A.9)

This section is applicable to the WIPP site and is implemented through WP 12-IS.01-3, Industrial Safety Program - Equipment and Tools. For the characterization activities at the host facilities, the portions related to powered industrial equipment falls within the programmatic oversight of the host facility in providing programmatic aspects such as training requirements, road signs, site speed limits, etc. Safe driving awareness campaigns are conducted.

- A. WTS implements a motor vehicle safety program to protect the safety and health of drivers and passengers in Government-owned or -leased motor vehicles and powered industrial equipment (i.e., fork trucks, tractors, platform lift trucks, and other similar specialized equipment powered by an electric motor or an internal combustion engine).
- B. The WTS motor vehicle safety program is tailored to the individual DOE site or facility, based on an analysis of the needs of that particular site or facility.
- C. The motor vehicle safety program addresses, as applicable to that portion of the WTS work scope or operations:
  - 1. Minimum licensing requirements (including appropriate testing and medical qualification) for personnel operating motor vehicles and powered industrial equipment;
  - 2. Requirements for the use of seat belts and provision of other safety devices;

- 3. Training for specialty vehicle operators;
- 4. Requirements for motor vehicle maintenance and inspection;
- 5. Uniform traffic and pedestrian control devices and road signs;
- 6. On-site speed limits and other traffic rules;
- 7. Awareness campaigns and incentive programs to encourage safe driving; and
- 8. Enforcement provisions.

### 10. Electrical Safety (Appendix A.10)

This section is applicable only to the WIPP site, including WTS employees and subcontractors at the WIPP site. The characterization activities at other locations fall under the electrical safety programmatic direction of the host site. WTS implements a comprehensive electrical safety program initiated through WP 12-IS.01-7 and WP 12-IS.01-7HV at the WIPP site. The program meets the applicable electrical safety codes and standards referenced in §851.23.

### 11. Nanotechnology Safety—Reserved (Appendix A.11)

The DOE reserved this section in the 10 CFR Part 851 since policy and procedures for nanotechnology safety are currently being developed. Once these policies and procedures have been approved, the rule will be amended to include them through a rulemaking consistent with the Administrative Procedure Act. In the interim any research conducted at the WIPP site related to nanotechnology will undergo thorough safety review with preplanned controls to ensure meeting the WTS commitment for defense in depth protection for employees, subcontractors, the public, and the environment.

### 12. Workplace Violence Prevention— (Appendix A.12) (Reserved)

The DOE reserved this section in the 10 CFR Part 851 since the policy and procedures for workplace violence prevention are currently being developed. Once these policies and procedures have been approved, the rule will be amended to include them through a rulemaking consistent with the Administrative Procedure Act. Once the rule is amended, the WTS implementing actions and documents will be included accordingly.

### 17.0 TRAINING AND INFORMATION (§851.25)

The requirements in this section are applicable to WTS work scope, including joint responsibility related to characterization activities and subcontracts in accordance with WP 14-TR.01, WIPP Training Program; and CCP-QP-002. In addition, characterization personnel also meet the training requirements of the applicable host site based on that site's 851 Plan.

- A. WTS has developed and implemented a worker safety and health training and information program to ensure that workers exposed or potentially exposed to hazards are provided with the training and information on that hazard in order to perform their duties in a safe and healthful manner.
- B. WTS ensures that the following is provided:
  - 1. Training and information for new workers, before or at the time of initial assignment to a job involving exposure to a hazard;
  - 2. Periodic training as often as necessary to ensure that workers are adequately trained and informed; and
  - 3. Additional training when safety and health information or a change in workplace conditions indicates that a new or increased hazard exists.
- C. WTS provides training and information to workers who have worker safety and health program responsibilities as is necessary for them to carry out those responsibilities.

### 18.0 RECORDKEEPING AND REPORTING (§851.26)

This function is a shared function is a shared function with the host sites for characterization activities with specifics delineated below.

#### A. Recordkeeping

1. WTS has established and maintains complete and accurate records of hazard inventory information, hazard assessments, exposure measurements, and exposure controls. For the WIPP site, records are maintained in accordance with the WP 12-IH series of procedures, and according to records management requirements in WP 13-1. For the characterization activities that WTS and WTS subcontractors have responsibility for per the interface agreements, records are maintained in accordance with CCP-QP-008, CCP Records Management Program. However, the majority of hazard and exposure records (including IH and Radiological Program records) are maintained by the host site per their 851 Plan.

- 2. WTS ensures that the work-related injuries and illnesses of its workers and subcontractor workers are recorded and reported accurately and consistent with DOE Manual 231.1-1A, *Environment, Safety and Health Reporting Manual*, September 9, 2004. This is a joint function, with reporting into systems such as Computerized Accident/Incident Reporting System (CAIRS), Occurrence Reporting System (ORPS), etc. being done based on the facility location. The facility M&O per the interface agreement has the primary responsibility for reporting for their facility. However, WTS maintains additional records for work scope at host facilities based on management commitment to ensure reporting is accurate and has occurred in a timely fashion. Work related injuries and illnesses of workers and subcontractor workers are recorded and reported in accordance with DOE Manual 231.1-1A, as implemented in WP 12-ES3918, Reporting in Accordance with DOE O 231.1A.
- 3. Comply with the applicable occupational injury and illness recordkeeping and reporting workplace safety and health standards in §851.23 at their site, unless otherwise directed in DOE Manual 231.1-1A. As discussed in the referenced §851.23, these standards are complied with for WTS covered workplaces.
- 4. Not conceal nor destroy any information concerning noncompliance or potential noncompliance with the requirements of this part. This requirement is implemented through WP 13-1.

#### B. Reporting and investigation

- 1. WTS reports and investigates accidents, injuries and illness; and this function is shared with the host sites, with the host site having the primary lead for any investigations occurring on their site per the interface agreements. For WIPP, this requirement is implemented through WP 12-SA3130, Occupational Injuries, Illnesses, and Close Calls; and WP 15-MD3102, Event Investigation, which includes investigation, determining violations, root cause analysis, and determining corrective actions to prevent recurrence.
- 2. WTS analyzes data for trends and for lessons learned. At the WIPP site, safety and health experience information is reviewed in monthly site safety statistical reports, through WP 13-1 trending; WP 15-MD3100; and the safety trending from the WP 04-IM1000. A significant number of leading indicators and qualitative safety performance measures are monitored in accordance with DOE/CBFO-98-2276, *Integrated Safety Management System Description*.
- 3. DOE has established reporting thresholds for reporting noncompliance above a certain level of worker safety and health significance into the

Noncompliance Tracking System (NTS). WTS uses an internal NTS system to track applicable noncompliances below the reporting threshold. Determinations as to whether a violation of a requirement has occurred, for determining the nature and extent of any such violation, and for imposing an appropriate remedy is addressed through the WIPP Form Process as defined by WP 04-IM1000.

#### 19.0 VARIANCES (SUBPART D)

Variances are submitted to the CBFO for review and, if the CBFO concurs, the variance is forwarded to the Cognizant Secretarial Officer (CSO) for approval. For those standards, which include an Authority Having Jurisdiction (AHJ) process to address equivalencies, that AHJ process is followed and variances are not required to be submitted. WTS and the CBFO use the AHJ process for the majority of NFPA standards. WTS implements the AHJ process under a process that recognizes the CBFO and DOE-EM as the AHJ depending on the action being requested. DOE Orders allow the approval of exemptions from requirements in DOE Orders, Notices, and Manuals (delineated in DOE M 251.1-1A, *Directives System Manual*). However, it is noted that 10 CFR Part 851 does not have provisions for these exemptions. Therefore, any needed exemptions to DOE Order, Notice, and Manual requirements, which are also contained in 10 CFR Part 851 will be submitted via the variance process or AHJ process as appropriate.

There are four variances currently approved by the CBFO. One is a variance from NFPA 101, Life Safety Code, emergency lighting requirements. The annual performance test of emergency lights includes a requirement that the battery backup power supply be able to perform satisfactorily for 1-½ hours. The WIPP variance allows the requirements for a satisfactory test to be reduced to 45 minutes. The justification was based upon the relatively small size of facilities and the actual time required for emergency evacuation.

The second variance was approved by the CBFO in January 2007 was regarding the WIPP Fire Alarm System. The current system is not totally NFPA 72, National Fire Alarm Code Compliant and resulted in a finding of deficiency in the latest revision process of the WIPP Fire Hazard Analysis. NFPA 72 is specific about requirements for maintaining system integrity including configuration requirements. Discrepancy examples include the requirements that the wiring and components that connect the buildings fire alarm panel to the Central Monitoring System is not listed for fire service applications and that the Radio Fire Alarm Receiver (RFAR) system is not in compliance due to modifications. The DOE mandated frequency change required that the RFAR transmitters and receivers be modified for narrow band frequency transmission. This modification could not be supported by the manufacturer and, therefore, was completed by an ad hoc modification by the site's electrical engineers. NFPA 72 requires that modifications to the system must be done within their listing and approved by the manufacturer. The WIPP fire alarm system is functional, operational,

inspected and maintained to provide defense-in-depth protection of DOE property. The CBFO approved a permanent variance to accept the fire alarm system as is.

The final variance request approved by the CBFO is a variance from NFPA 13, Installation of Sprinkler Systems requirements for sprinkler locations. NFPA 13 states that "Sprinklers shall be installed under fixed obstructions over 4 feet wide such as ducts, decks, open grate flooring, cutting tables, and overhead doors." This requirement would be pertinent to the CH bay TRUDOCKs and RH bay cask preparation station. Both of these work platforms are fixed structures that are greater than 4 feet wide and are constructed/covered in a manner which would prevent the overhead sprinkler system from controlling or extinguishing a fire located under the platforms. However, both platforms are under a combustibles program, maintained clear of debris and transient combustibles and neither is constructed with a significant amount of combustibles. A letter to the CBFO AHJ was sent on December 2005 to request approval to grant a variance from the requirement to place sprinklers under the CH bay TRUDOCKS and the RH cask preparation stand. Justification was provided based upon administrative controls for combustible loading limitations, facility inspections, and lack of ignition source when the areas are unattended. This variance was subsequently approved.

#### 20.0 PROGRAM REVIEW AND CONTINUOUS IMPROVEMENT

The WTS WSHPD (WTS WSHPD) will be reviewed annually as discussed in the program administration section. In addition, an evaluation of the effectiveness of the WTS WSHPD will be conducted during the annual ISM assessment and in conjunction with the WP 13-1 Contractor Assurance Program. This is in keeping with the WTS *Integrated Safety Management System Description* requirements for feedback and continuous improvement in safety.

#### 21.0 COMPLIANCE REFERENCE LIST

This is the list of documents that effectively implement 10 CFR Part 851 as referenced throughout the plan.

- CCP-CM-001, Equipment Change Authorization and Documentation
- CCP-PO-004, CCP/SRS Interface Document
- CCP-PO-012, CCP/LANL Interface Document
- CCP-PO-024, CCP/INL Interface Document
- CCP-PO-500, CCP/ANL RH-TRU Waste Interface Document
- CCP-QP-001, Graded Approach
- CCP-QP-002, CCP Training and Qualification Plan

- CCP-QP-008, CCP Records Management Program
- CCP-QP-009, Work Control Process
- CCP-QP-010, CCP Document Preparation, Approval, and Control
- CCP-QP-025, Lessons Learned Program Management
- EnergX 851 Plan, CM-A-IS-001, TRU Waste Processing Center, Worker Health and Safety Program
- FAP-001 through FAP-008, WIPP Firearms Procedure Manual
- LANS 851 Plan
- U of C, LLC 851 Plan (\*University of Chicago- Argonne)
- Integrated Safety Management System Description
- DOE/CBFO-98-2276, Integrated Safety Management System Description
- DOE/WTS 01-3181, Authorization Agreement for the Waste Isolation Plant
- MP 1.12, Worker Protection Policy
- MP 1.2, Work Suspension and Stop-Work Direction
- MP 1.29, Mission, Goals, and Responsibilities
- MP 1.7, Employee Performance Appraisal and Development,
- MP 5.16, Landlord Program
- WP 02-EC.12, Site Users Guide for Organizations, Personnel, or Companies that Perform Work on U.S. DOE Property or Rights of Way on or Around the Waste Isolation Pilot Plant Site
- WP 04-IM1000, Issues Management Program Processing of WIPP Forms
- WP 09-Engineering Conduct of Operations
- WP 09-CN3005, Graded Approach to Application of QA Controls
- WP 09-CN3018, Design Verification
- WP 09-DC.01, Construction Management Program
- WP 12-ER4908, Surface Fire Response

- WP 12-ER4911, Underground Fire Response
- WP 12-ES3918, Reporting in Accordance with DOE O 231.1A.
- WP 12-FP.01, WIPP Fire Protection Program
- WP 12-IH.02, WIPP Industrial Hygiene Program Manual Overview
- WP 12-IH.02-1, Hazard Assessment
- WP 12-IH.02-7, WIPP Industrial Hygiene Program-Lasers, Lighting, Pest Control, Sanitation, and Temperature
- WP 12-IS.01, Industrial Safety Program-Structure and Management
- WP 12-IS.01-1, Industrial Safety Program-Postings, Warnings, & Hazard Identification
- WP 12-IS.01-3, Industrial Safety Program-Equipment and Tools
- WP 12-IS.01-4, Emergency and Personal Protective Equipment
- WP 12-IS.01-6, Industrial Safety Program-Subcontractor Safety
- WP 12-IS.01-7, General Electrical Safety
- WP 12-IS.01-7HV, Craft Manual-Electrical Safety
- WP 12-SA3130, Occupational Injuries, Illnesses and Close Calls
- WP 12-9, Emergency Management Program
- WP 13-1, Washington TRU Solutions LLC Quality Assurance Program Description
- WP 14-TR.01, WIPP Training Program
- WP 15-HS.02, Occupational Medical Program
- WP 15-MD3100, Lessons Learned Program
- WP 15-MD3102, Event Investigation
- WP 15-PC3605, Proposal Competition, Identification, Selection, Evaluation, and Award
- WP 15-PC3609, Preparation of Purchase Requisitions